



State of Nevada – Department Of Personnel

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
ADMINISTRATOR II, REGISTERED PROFESSIONAL ENGINEER	47*	A	6.221
OPTIONS: A. CONSTRUCTION DIVISION			
B. MAINTENANCE DIVISION			
C. LOCATION DIVISION			
D. MATERIALS DIVISION			
E. ROAD DESIGN DIVISION			
F. STRUCTURAL DESIGN DIVISION			
G. DISTRICTS			

Under administrative direction, administer the activities of a large, complex and diverse division or a district within the Department of Transportation including establishing policies for the division and contributing to the development of departmental policy; exercising executive control and final action of major engineering projects within the policies established by the department; and analyzing complex situations to determine an effective course of action.

Perform professional engineering functions requiring the synthesis of previously unrelated data in order to develop solutions to complex problems impacting the administration and management of major, broad organizational services and long and short range goals.

Exercise executive control and final action of engineering projects and personnel actions within the policies established by the department including duties that result in decisions and provide control of outcome of decisions.

Work with executives, officials and regulatory representatives to negotiate solutions to major or controversial issues within policy guidelines.

Develop and manage the division's/district's budget to include determining and monitoring the need for and cost of equipment and supplies, overtime, travel, training, consultative work, publications, data processing, printing, and committee, conference and meeting requirements.

Perform supervisory functions including reviewing work performance standards and preparing written evaluations of direct subordinates; recommending and implementing disciplinary action as required; coordinating the hiring of employees; approving the use of leave and accrued compensatory time; and allocating the division/district staff to keep up with the changing character and quantity of work.

Represent the department/district at hearings, meetings, conferences and committees with other entities and/or the public to explain department policy and projects and to answer questions; provide expert testimony in court related to division operations, policies and procedures; and represent the division/district at director's staff meetings.

Participate in various committees and associations for the purpose of formulating policy, evaluating products and processes, and planning and sharing information.

Perform related duties as assigned.

*** Reflects a 2-grade, special salary adjustment authorized by the 2001 Legislature to improve recruitment and retention.**

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Option A - Construction Division: Administer the statewide Construction Division to include ensuring the highway system is constructed to the highest quality standards utilizing available resources; administering statutory regulations and department policies through contract and correspondence reviews; developing human resource requirements for upcoming work programs; recommending the use of consultants when necessary and selecting consultant firms to augment construction forces.

Administer the construction specifications process by developing and updating construction specifications; ensuring specifications are current, understandable, functional and fair; and evaluating contract special provisions to ensure items unique to a specific contract are properly covered and in compliance.

Administer the contract claims process to include evaluating contractor claims to determine validity; meeting with contractors to resolve claims discrepancies; making recommendations to management regarding contractor claims and the course of action to be taken; and preparing and defending the department's position to the Claims Board.

Option B - Maintenance Division: Administer the activities of the statewide Maintenance Division to ensure highway maintenance is achieved at the highest level possible utilizing available resources; provide program authority and direction including development of a road network prioritization plan; develop and coordinate a cooperative plan with outside entities to maintain all maintainable features in the Tahoe Basin.

Direct planning processes including approving Districts' annual work programs, budgets, and equipment rental requests; reviewing and recommending approval on annual statewide material and equipment purchases; coordinating and implementing maintenance station facility improvements with other divisions; developing an emergency response plan for handling hazardous spills on roadways; reviewing and monitoring the development and implementation of the statewide maintenance training program; developing the annual maintenance office work program; planning, implementing and monitoring revisions and updates to the Maintenance Management System; and developing general statewide maintenance policies.

Direct the preparation of various reports and write interpretative text with summary and recommendations and disseminate reports to interested entities.

Serve as department representative to Western Association of State Highway and Transportation Officials (WASHTO) and American Association of State Highway and Transportation Officials (ASHTO) subcommittees on Maintenance; and serve on other committees and boards as assigned.

Option C - Location Division: Administer the activities of the Location Division to include surveying, aerial photography, imagery, mapping and other preliminary engineering activities for highway engineering projects; oversee location advisory team studies of possible location or relocation of highway segments.

Oversee the development, implementation and program management of the department's Geographic Information System (GIS) linking graphic map features with descriptive data from within the department and other jurisdictions.

Determine the need for consultants; ensure projects meet and conform to applicable State, federal and departmental standards and Location criteria.

Option D - Materials Division: Administer the activities of the Materials Division to include directing the operational branches of the division and the statewide materials testing and inspection program to ensure design quality control and appropriate evaluation of highway structural sections.

Develop and establish division policies, technical methods and procedures to be applied in testing, inspecting and applying construction materials; coordinate and consolidate conflicting recommendations on the selection and application of materials to road and bridge construction projects; provide materials expertise on highway construction materials to other State transportation divisions, federal agencies, city and county agencies, contractors and consultants.

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Option E - Road Design Division: Administer the activities of the Road Design Division by reviewing preliminary plans, construction cost estimates and project schedules; directing the preparation of roadway design plans ensuring and certifying that all design projects conform to applicable federal and departmental standards and design criteria; determining the need for consultants; recommending project advertising dates; reviewing preliminary design field study reports for major maintenance projects and resurfacing, rehabilitation and renovation projects to ensure the scope of work is within project guidelines; reviewing design related change orders by checking for necessity and for repetitive errors and formally requesting the change order through the Chief Construction Engineer. Perform engineering functions to include examining plans, specifications and estimates with emphasis on stopping sight distance, super elevation and roadside features to ensure proposed projects meet safety standards; initiating, reviewing and approving modifications to the standard plans and design manual, checking or supervising the checking of design project estimates, and reviewing contractors' bids to recommend acceptance/denial to administration.

Option F - Structural Design Division: Administer the activities of the Structural Design Division and establish design policies to ensure consistency in design; approve preliminary structural plans of bridges for submission to the Federal Highway Administration or for certification acceptance; confer with designers during the production of structural designs to provide direction and code interpretation; request the use of consultants when necessary; contract with consultants as required; monitor work and designs produced by consultants to ensure compliance with consultant agreement; approve final contract plans for structures; certify construction drawings; and give final approval of standard plan drawings for inclusion in the department's standard plan publication. Administer the structure construction management process by recommending approval or denial of contract change orders; providing technical assistance to construction personnel; and conducting on-site reviews to monitor construction progress and ensure structures are constructed properly.

Administer structure inventory and maintenance management process by directing the unit in charge of maintaining the structure inventory and performing maintenance inspections; participating in the selection and giving approval to the final selection of bridges to be replaced or rehabilitated per regulations; and participating in the determination of prioritizing bridge maintenance projects.

Option G - Districts: Direct, manage and oversee the administration of the district to ensure compliance with departmental policies and procedures regarding the functional operation of activities conducted in the division. Represent the department and coordinate activities with local entities, law enforcement agencies, planning commissions, the Bureau of Land Management and other federal agencies.

Administer the construction operations for the district by requesting reviews of district roadway sections not prioritized by the Pavement Management System; participating or assigning staff to accompany design and construction personnel in field reviews of projects under design; reviewing plans, specifications and agreements and participating in the formal specification review meetings; monitoring and reviewing construction projects in progress and conducting periodic field reviews for acceptance of project; monitoring the construction engineering labor maintenance system; reviewing and approving change orders and issuing prior approvals when needed; coordinating public information with regard to construction projects to include receiving complaints and ensuring that justified complaints are addressed and corrections are made in a timely manner; monitoring construction activities for compliance with plans and specifications and environmental concerns; and assisting the Construction Division in the review of traffic control and signage on construction projects.

Administer the maintenance functions for the district by approving the district's work plan submittals and setting work priorities; inspecting existing highway facilities and other divisions of conditions and/or deficiencies as appropriate; monitoring normal maintenance activities and betterment projects and reviewing accomplishments for effectiveness and productivity; and providing assistance to other agencies during emergencies and/or natural disasters.

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MINIMUM QUALIFICATIONS

SPECIAL NOTES AND REQUIREMENTS:

- * **All Options:** Registration as a Professional Engineer in Nevada is required at the time of appointment. Any person registered as a Professional Engineer in another state must become registered as a Professional Engineer in Nevada within six months following the date of appointment as a condition of employment.
- * **Option C - Location Division:** Registration as a Professional Engineer and a Professional Land Surveyor in Nevada is required at the time of appointment. Any person registered as a Professional Engineer or Land Surveyor in another state must become registered in Nevada within six months following the date of appointment as a condition of employment.

EDUCATION AND EXPERIENCE: Two years of experience comparable to an Administrator I, Registered Professional Engineer; **OR** three years of experience comparable to the Supervisor IV, Registered Professional Engineer or Manager I, Registered Professional Engineer; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

ALL OPTIONS - Working knowledge of: State Administrative Manual, Rules for State Personnel Administration, department affirmative action plan and the supervisor's guide to prohibitions, penalties and grievance procedures. **Knowledge of:** engineering principles, engineering nomenclature and construction methods; federal and State affirmative action and equal employment opportunity laws and regulations applicable to public institutions sufficient to analyze personnel policies and procedures; the principles of organization and management in an engineering environment. **Skill in:** financial and technical analysis; relating and communicating with people from various educational, social, ethnic, cultural and economic backgrounds. **Ability to:** manage people and resources to include developing plans and making decisions; deliver oral presentations; deal with public and individuals with tact, insight, and diplomacy; write concise reports, memos, directives to include analytical reports, theories and processes; work independently and follow through on assignments with minimal direction; foresee consequences of decisions; adapt to frequent changes; exchange ideas, information and opinions with others to formulate policies and programs and/or arrive jointly at decisions, conclusions or solutions; analyze problems, situations, or procedures to define the problem or objective, identify relevant concerns or factors, and formulate logical and objective conclusions; set priorities which reflect the relative importance of job responsibilities; read and comprehend technical reports to keep abreast of the latest management/engineering theory or application and develop new policy if warranted; read legal documents and engineering texts; write legal documents and engineering texts; make decisions based on technical information, department policies and goals which may involve expenditures of millions of dollars and involve the public safety; remain calm in controversial/confrontational situations such as when conducting public hearings or dealing with irate citizens.

OPTION A - CONSTRUCTION DIVISION - Knowledge of: construction equipment and materials; department policies, construction procedures, organization and personnel system; the costs of construction and construction materials as they apply to building highways. **Ability to:** interpret construction drawings, specifications, technical reports and literature pertaining to highway projects.

OPTION C - LOCATION DIVISION - Detailed knowledge of: the functions of photogrammetry, geodesy, cartography, imagery and surveying practices. **Working knowledge of:** the Geographic Information System functions and capabilities. **Ability to:** determine what factors are evaluated for route location studies; ensure good engineering practices are used during field location of a project.

OPTION D - MATERIALS DIVISION - Working knowledge of: the department materials manual. **General knowledge of:** the American Association of State Highway Transportation Official's Guide for the Design of Pavement Structures, and department construction manual. **Knowledge of:** engineering principles and theory with specific emphasis on highway construction materials.

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ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)

OPTION E - ROAD DESIGN DIVISION - Knowledge of: economic principles of engineering sufficient to allow the selection of design alternatives based on economic value. **Skill in:** performing particular phases of engineering work such as highway capacity calculations or geometric designs of roadways. **Ability to:** speak clearly and concisely and clarify complicated engineering terminology to lay persons for the purpose of obtaining information and providing explanations of policies and justification for certain design decisions; speak before large groups to clearly convey department design and policy decisions; administer and direct the work of a group of engineers involved in the design and construction of roads.

OPTION F - STRUCTURAL DESIGN DIVISION - Knowledge of: principles of structural engineering design, including nomenclature, design methods and sources of information. **Ability to:** interpret structural drawings and specifications pertaining to highway structures; analyze complex technical data such as structural design theories using logic and quantitative reasoning; modify and/or adapt structural designs, procedures or methods to highway structures; judge the conditions of a highway structure to determine maintenance needs.

OPTION G - DISTRICTS - Ability to: read and understand technical engineering specifications; read and understand engineering plans.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

ALL OPTIONS - Working knowledge of: a wide variety of personnel, accounting and property management forms; techniques for providing information to the general public. **General knowledge of:** accounting and auditing procedures applicable to government contracts with outside firms. **Knowledge of:** organizational structure of the department and sources of information; department and division/district budgetary procedures. **Skill in:** resolving human relations problems in a fair, equitable, and acceptable manner; informing, educating, and enlightening the participating audience; achieving the maximum potential of an employee while maintaining a high level of morale. **Ability to:** quickly make sound decisions on complex and diverse issues; meet division/district goals when unanticipated budget restraints and/or major project schedule changes occur; interpret and enforce personnel policies and rules; recommend or set priorities to effectively meet goals set by management; judge when information should be passed on to different levels of management; speak on a one-to-one basis using appropriate vocabulary and grammar to obtain or give information and to explain policies and procedures; discuss a variety of job related topics on short or no notice; motivate others and stimulate people to effective action; establish and maintain cooperative working relationships with other divisions, districts and governmental agencies; perform effectively under conditions of fluctuating workload; set priorities which accurately reflect the relative importance of job responsibilities; prioritize assignments to complete work in a timely manner when there are changes in workload, changes in assignments, pressures of deadlines, and competing requirements; interpret government regulations and directives as applied to job procedures; work effectively with frequent interruptions and/or distractions.

OPTION A - CONSTRUCTION DIVISION - Ability to: draft contract agreements that conform to the legal and policy constraints of the department.

OPTION B - MAINTENANCE DIVISION - Working knowledge of: general occupational health and safety regulations and procedures related to handling hazardous materials. **Knowledge of:** the Maintenance Management System; the Maintenance Training Program and equipment operator training and certification policies and procedures; federal and State environmental guidelines, policies and procedures pertaining to maintenance projects; maintenance equipment, materials and processes; transportation planning principles and practices; legal forms and interlocal agreements.

OPTION E - ROAD DESIGN DIVISION - Working knowledge of: the department's manuals, policies, procedures and guidelines utilized in the daily activity of the division. **General knowledge of:** State statutes as applied to the operation of the department; federal, State and local environmental laws related to design and construction activities. **Ability to:** modify or adapt standard design procedures to fit unusual circumstances consistent with cost, safety and schedule requirements.

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FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (cont'd)

OPTION F - STRUCTURAL DESIGN DIVISION - **General knowledge of:** costs of construction and construction materials applicable to building highways. **Ability to:** draft contract agreements that conform to the legal and policy constraints of the department.

OPTION G - DISTRICTS - **Working knowledge of:** general traffic engineering principles; federal and State environmental guidelines, policies and procedures pertaining to maintenance and construction projects; equipment specifications; transportation planning principles and practices; structural analysis in relation to capital facilities; legal forms including interlocal agreements, leases and deeds; general vehicle safety operations, general occupational health and safety regulations and safety in handling hazardous materials; departmental equipment operator training program policies and procedures. **Skill in:** financial planning, preparation and administration of a multi-million dollar budget to include appropriately correlating available fiscal resources with departmental goals.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

6.221

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8/31/92PC
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